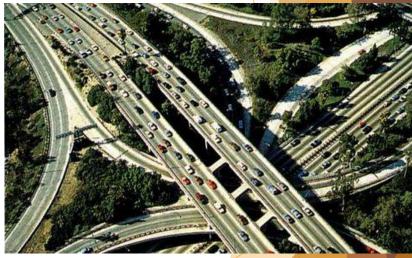
Mileage based user fees & sustainable transportation funding

Dr. Adrian Moore

Vice President

Reason Foundation



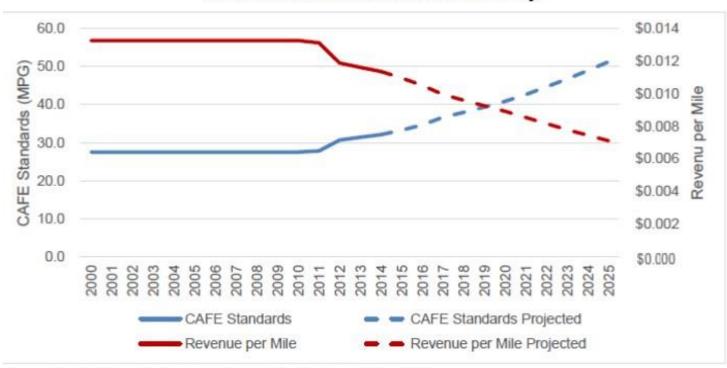


Paying for Transportation in the Long Run

- ► The current U.S. system relies on fuel taxes
- We have seen a marked decline in revenues
- Two National Commissions have called for short and long-term solutions
- MBUF collection systems have come to the forefront of options to consider

Revenue Loss Due to Increases in Fuel Economy

Exhibit 6
Revenue based on Vehicle Fuel Economy



Source: Derived from Environmental Protection Agency, October 2012.

Source: NCSU ITRE Report for NC Chamber Foundation

What is an MBUF/RUC?

- ▶ A user fee paid by the mile rather than by the gallon that REPLACES the fuel tax
- Elements include:
 - A mechanism to asses charges
 - A method of payment
 - Money goes to transportation fund



Why is vehicle miles of travel-VMT-the preferred basis for new fee?

- ► Fairness—proportional to extent of use.
- Applies regardless of propulsion source.
- Will grow along with VMT, as economy and population grow.
- Should be indexed for inflation.
- Could be higher for costly highways, lower for local streets & roads (unlike fuel tax).
- Would restore the original users-pay/usersbenefit principle on which fuel taxes used to be based.

FAST Act and STSFA Grants

- \$95 million Surface Transportation System Funding Alternatives (STSFA) grant program established under the FAST Act
- STSFA program purpose:

"to provide grants to States to demonstrate user-based alternative revenue mechanisms that utilize a user fee structure to maintain the long-term solvency of the Highway Trust Fund"

Program Objectives

- To test the design, acceptance, and implementation of 2 or more future user-based alternative revenue mechanisms.
- To improve the functionality of such user-based alternative revenue mechanisms.
- To conduct outreach to increase 3. public awareness regarding the need for alternative funding sources for surface transportation programs and to provide information on possible approaches.
- To provide recommendations regarding adoption and implementation of user-based alternative revenue mechanisms.
- To minimize the administrative cost of any potential user-based alternative revenue mechanisms.

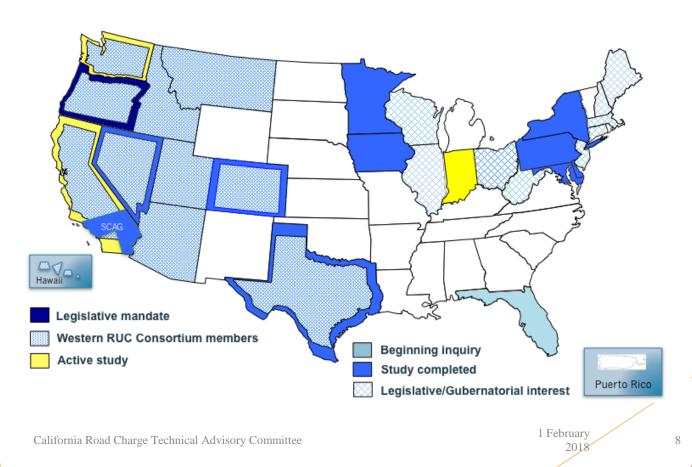


Some FAST Act Winners

- 1-95 Corridor Coalition
- **RUC West**
- Oregon Department of Transportation
- California Department of Transportation
- Minnesota Department of Transportation
- Missouri Department of Transportation
- Washington Department of Transportation
- Hawaii Department of Transportation



Other states and countries have shown Road Charging to be fair and sustainable



Issues An MBUF System Must Address

- Privacy protection
- Evolution of technologies
- Scalability of systems
- Flexibility of systems for policy adaptations
- Complexity of implementation
- Difficulty of operations
- Making compliance simple and easy
- Interoperability among states
- Data security
- Cost of administration
- Equity by income, geography and vehicle type
- Transition



Context of privacy debate has shifted with recent scandals. Trust is a bigger issue.

Privacy entails both:

- Protection from government misuse of data
- Protection against information breaches for malicious intent

Four approaches to privacy can work in concert

- Tech that does not transmit data other that \$ owed.
- Using a trusted third party to protect and secure private data
- Tech where user controls privacy settings
- Privacy legislation that sets rules and accountability



Rural drivers

Pay fuel tax now

More off-road driving

Fuel efficient vehicles

Currently not paying fair share for road use
Already avoid cost of fuel
Road Usage Charge not a large burden

Less affluent drivers

Pay fuel tax now

Tend to drive older,

less fuel efficient vehicles

Non-resident driving

Until regional system, still pay fuel tax

Technology for metering miles

There are options

- Odometer. Periodic inspections determine fee.
- Simple OBU. On board data collection, with periodic transmission.
- OBU with cellular location. On board determination of jurisdiction of travel.
- OBU with GPS. Fine grained travel data.

Smartphone application. On board data collection with GPS and cellular communications for metering and

reporting.

Collection Costs

On its face, an MBUF system is more complex and seems likely to be more expensive to collect than current fees and taxes.

Oregon analysis shows costs fall dramatically as more vehicles in system.

Recent Reason research shows that:

- The FULL cost of collecting fuel taxes, including indirect and opportunity costs, is at least 5% of revenue
- The most efficient AET systems have collection costs of about 5% of revenue.

Likely Success Factors

- Understand contentious issues and address them up front. Build trust.
- Include choices for participants, so they are in control.
- Tackle privacy head on involve privacy advocates.
- Conduct trials and educational outreach. Include elected officials, media, and stakeholders in the trials.
- Start simple and add on layers over time.
- Build a system that is flexible and easy to adapt and add on and can integrate with other systems.
- Involve private sector and use competition

Questions?

reason FOUNDATION

Adrian.moore@reason.org www.reason.org

Mileage Based User Fee Alliance www.mbufa.org